



07-31-01

AF/1645/18

AMENDMENT TRANSMITTAL LETTER			Docket No. P00965US0
Application No. 08/160,965	Filing Date December 2, 1993	Examiner J. Hines	Group Art Unit 1645

Applicant(s): James M. Musser and V. Kapur

Invention: VACCINES CONTAINING CYSTEINE PROTEASE AND METHODS TO PROTECT AGAINST GROUP A STREPTOCOCCI

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## TO THE COMMISSIONER FOR PATENTS

AUG 02 2001

Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated and is transmitted as shown below.

TECH CENTER 1600/2900

CLAIMS AS AMENDED					
	Claims Remaining After Amendment	Highest Number Previously Paid	Number Extra Claims Present	Rate	
Total Claims	55	- 20 =	35	x 18.00	630.00
Independent Claims	12	- 3 =	9	x 80.00	720.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					
Other fee (please specify):					
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT:					1350.00

☒ Large Entity☐ Small Entity☐ No additional fee is required for this amendment.☒ Please charge Deposit Account No. 06-2375 in the amount of \$ 1350.00

A duplicate copy of this sheet is enclosed.

☐ A check in the amount of \$ \_\_\_\_\_ to cover the filing fee is enclosed.☒ The Commissioner is hereby authorized to charge and credit Deposit Account No. 06-2375 as described below. A duplicate copy of this sheet is enclosed.☒ Credit any overpayment.☒ Charge any additional filing or application processing fees required under 37 CFR 1.16 and 1.17.  
Melissa W. Acosta

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Dated: July 30, 2001

## Amendment Transmittal

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EK102717715US, in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date shown below.

Dated: July 30, 2001 Signature: Staci Harris (Staci Harris)



Application No. 08/160,965

*Original*  
*49/6*

Docket No. HO-P00965US0

EXPRESS MAIL NO. EK102717715US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
James M. Musser and V. Kapur

Application No.: 08/160,965

Group Art Unit: 1645

Filed: December 2, 1993

Examiner: J. Hines

For: VACCINES CONTAINING CYSTEINE  
PROTEASE AND METHODS TO PROTECT  
AGAINST GROUP A STREPTOCOCCI

TECH CENTER 1600/2900

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AMENDMENT UNDER 37 CFR 1.116

**Box AF**  
Commissioner for Patents  
Washington, DC 20231

Dear Sir:

In response to the Office Action dated May 30, 2001, please amend the above-identified U.S. Patent application as follows:

In the Claims

Please cancel claim 3. Please substitute the below amended claims for claims 1 and 4-6.

1. (Amended four times) A vaccine comprising:

a physiologically acceptable non-toxic vehicle containing a purified non-proteolytic cysteine protease, which confers immunity to a mammal against Group A streptococcal infection, wherein said cysteine protease comprises at least one amino acid substitution and said amino acid substitution occurs at the amino acid position selected from the group consisting of Lys145, Gln185, Cys192, His340, Asn356 and Trp357.

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01 FC:103 630.00 CH  
02 FC:102 720.00 CH